

lack of truthfulness constantly met. He said to a boy, "You know that it is a lie," and he replied, "Oh, yes, but it has gone down quite well so far." That showed an absolute absence of the abstract principle of truth. Stealing money was regarded as a very serious offence, if not unforgivable, but stealing books or gramophone records was regarded as an extended form of borrowing. A fault among boys was what was called "peacockry," when their vanity caused them to pinch anything to adorn their persons.—*The Weekly Times*, Aug. 4, 1932.

Abstracts from Current Literature

Medicine

What Happens eventually to Patients with Hyperthyroidism and Significant Heart Disease following Subtotal Thyroidectomy. Rosenblum, H. H. and Levine, S. A., *Am. J. M. Sc.*, 1933, 185: 219.

The authors have studied 69 cases of hyperthyroidism which showed evidence of gross disturbance in the cardiovascular mechanism. A subtotal thyroidectomy was performed in every case and the entire group followed for an average of 4 to 5 years. The average pre-operative basal rate was plus 51.1 per cent, and the average metabolism of the series after operation was plus 4.8 per cent.

As regards changes in the blood pressure before and after thyroidectomy, a group of 23 patients in whom the initial blood pressure was 179 mm. of Hg. was found to have exactly the same pressure after 3.3 years; a second group of 43, in whom the average pre-operative pressure was 153 mm. of Hg. had an average blood pressure of 156 after 3.3 years; a third group of 20 had a normal pressure before and 3.3 years after operation. Roentgenographic measurements of the hearts of 10 patients before and twelve weeks after subtotal thyroidectomy (all with heart disease) showed identical measurements before and after this post-operative period of time. As regards murmurs, there was a specific notation of murmurs before and after operation in 27 cases. In all of these systolic murmurs were present. In 16 the systolic murmur disappeared after operation; in 8 it became less intense; and in 3 it was unchanged. Eight of the 27 had diastolic murmurs; six of these had mitral stenosis. Changes in the irregularities of the heart were common. Of the 69 cases 32 had permanently established auricular fibrillation, and an additional 12 cases showed paroxysmal auricular fibrillation. Following operation, recurrent auricular fibrilla-

tion did not recur, but of 11 patients who had mitral stenosis, the irregularity persisted in 10; in the remaining case normal rhythm was established by the use of quinidine sulphate. Of the remaining 13, without mitral stenosis, 6 reverted to normal rhythm after operation and remained normal for years. There were 9 cases of angina pectoris in the series. Seven of these had typical attacks while at rest. The average duration of the anginal symptoms before operation was 31 months. In every instance the attacks either completely disappeared or recurred in a mild form at very rare intervals after operation.

The authors were impressed by the rarity of congestive heart failure in young patients with hyperthyroidism and the uniformity of other forms of heart disease, as mitral stenosis, etc., in those with significant cardiac embarrassment. It seems probable, therefore, that hyperthyroidism is rarely the sole cause of heart failure. The circulatory improvement which followed subtotal thyroidectomy in these cases with pre-operative heart lesions (mitral stenosis, angina pectoris, etc.), suggests to them the possibility of treating various forms of cardiac disease by means of subtotal removal of a normal thyroid gland. They cite one instance when this was done with striking clinical improvement. The authors caution against the use of quinidin therapy for auricular fibrillation in the pre-operative state. They feel that it has a place in dealing with auricular fibrillation persisting some months after operation, provided mitral stenosis is not present.

E. S. MILLS

Some Unusual Complications of Hyperthyroidism. Smith, C. and Sauls, H. C., *Ann. Int. Med.*, 1933, 6: 1097.

Obscure hyperthyroidism must be excluded in patients with heart disease in whom neither hypertension, the rheumatic syndrome, nor lues accounts for the condition. It may exist without a palpable thyroid. The heart is usually enlarged; mitral systolic or aortic diastolic murmurs may be present and disappear after thyroidectomy. The heart rate is usually rapid and the rhythm irregular. Auricular fibrillation is often present. The systolic blood pressure is usually increased and the pulse pressure increased. Præcordial pain without the usual signs of accompanying vascular disease should arouse the suspicion of thyrotoxicosis. Basal metabolism tests should be repeated, and, if not conclusive, the therapeutic iodine test may be done. Iodine should almost never be given, unless plans for operation have been made. Probably the only indication for digitalis in thyroid heart disease is congestive heart failure. Many cases of fibrillation associated with thyrotoxicosis fail to respond to digitalis, but the

majority revert to normal rhythm after thyroidectomy. Operation should be attempted even in patients with advanced myocardial failure after proper medication.

Of the 4 cases reported, Case 1 simulated primary heart disease with aortic regurgitation, and was complicated by a severe anæmia, which is a very unusual complication of hyperthyroidism. Case 2 with diarrhœa, achlorhydria, anæmia, and papillary atrophy of the tongue caused the authors to suspect a "pellagra-like" deficiency disease. It was only after the fibrillation developed that attention was called to the thyroid. The recognition of the hyperthyroidism does not, however, rule out an associated deficiency disease. The third case was one of hypertensive heart disease in which the removal of the burden of an increased metabolism by thyroidectomy considerably increased the patient's cardiac reserve. In the fourth case, hyperthyroidism, suspected because of the absence of hypertensive heart disease and of mitral stenosis, was found to account for the auricular fibrillation.

H. GODFREY BIRD

Permanent Organic Cardiovascular Disease after Thyrotoxiæmia. Bach, F. and Bourne, G., *Quart. J. Med.*, 1932, 1: 579.

It is pointed out that the manner of production of the heart failure so frequently associated with hyperthyroidism is not well understood. It might be due to the continued tachycardia, to a direct toxic effect of the thyrotoxin on the heart muscle, or these factors, one or both, might be able to produce permanent damage only in hearts already damaged or predisposed to damage by other known causes of heart failure—rheumatism, syphilis and arteriosclerosis. The authors find no concurrence of opinion in the literature. They have carefully followed up (1932) 36 cases successfully treated for hyperthyroidism (all but one surgically) between 1922 and 1927. After thorough investigation, they conclude that thyrotoxiæmia alone does not produce permanent changes in the normal heart. It may produce additional myocardial change in hearts affected by some other cause of myocarditis or predisposed to arteriosclerosis. Thyrotoxicosis may initiate a hyperpiæsis, presumably in individuals predisposed to that lesion.

W. FORD CONNELL

Pernicious Anæmia with return of Hydrochloric Acid and Ferments After Treatment. Davidson, L. S. P., *Brit. M. J.*, 1933, 1: 182.

A case of pernicious anæmia is described, presenting all the cardinal features of the disease, in which the power of secreting normal gastric juice was regained under treatment. The patient, a man of 39, had been in India for ten

years, and had there suffered from malaria repeatedly, at the same time over-indulging both in alcohol and tobacco. When seen after a six months' period of general ill-health and weakness, his blood count was 1,250,000; hæmoglobin 30 per cent; colour index, 1.2. Other features were typical, including the Price-Jones curve, while the gastric juice contained no free HCl and total acidity was low; pepsin was also absent. Treatment consisted of twelve days' administration of a fish-liver extract prepared by the author—two tubes daily. No further therapy was given, then or subsequently. Within 33 days, the patient was discharged with a blood count of 4,100,000 and 85 per cent hæmoglobin. His general health was then excellent. Three months later, the gastric contents were found to be normal—as regards content of hydrochloric acid and pepsin. It was felt that the secretion of the intrinsic factor of Castle had also been re-established and the patient was told that if he abstained from alcohol he would require no further liver therapy. His condition has remained most satisfactory for the subsequent 6 months.

In idiopathic pernicious anæmia, the failure in secretion of the intrinsic factor of Castle by the stomach is not well understood, though the constitutional factor is important. In the above case, the defect was acquired, probably due to a gastritis conditioned by the abuse of alcohol, and tobacco, together with the effects of malarial toxæmia. Owing to anorexia, the intake of foods rich in the extrinsic factor of Castle was apparently very low, for the past year. The mechanism of spontaneous remissions in pernicious anæmia is discussed. It is suggested that in acquired cases where a definite cause for the failure of gastric secretion can be found and removed, a complete cure may be expected to result.

W. FORD CONNELL

Surgery

Remarks on the Results of Lumbar Sympathectomy in Thrombo-Angiitis Obliterans. Telford, E. D. and Stopford, J. S. B., *Brit. M. J.*, 1933, 1: 173.

Sixteen cases of thrombo-angiitis obliterans are discussed, all treated by lumbar sympathectomy, none later than August, 1932. The average age was 47; only 3 of the patients were Jewish, the alleged predominance of Jews as victims of this disease being nothing more than a geographical accident. Smoking in these cases did not appear to be a causal factor; all but two patients were engaged in sheltered work within doors. There was one positive Wassermann test in the series; syphilis has no relation to the disease. The average interval between onset of symptoms and operation was 6½ years. One

patient became crippled within 8 months. There appears to be an early stage when vasospasm is a chief feature and intelligent patients usually give a history of initial coldness, in attacks, the feet at these times being "dead white". In most cases, claudication is a first symptom. Seven of the patients complained of vascular disturbance in the arms, of the spasmodic Raynaud type, thrombosis never being clinically evident. In all cases the feet were cold, dusky or dead white, developing some rubor in the dependent position—which position, together with cool air, gave the patients most comfort. In four cases, no pulse could be felt below Poupart's ligament; in twelve, the pulse was vigorous as far as the division of the femoral into superficial and profunda arteries, *i.e.*, where the sympathetic supply to the limb has been shown to change over from a perivascular plexus to a supply derived from the peripheral nerves. This observation may throw light on the nervous origin of the disease. The commonest mode of onset of grave trouble is by onychia rather than massive gangrene. Eight of these cases showed neither infection nor gangrene; 4 had extensive gangrene of two or more toes, and 4 had callus ulcers of the great toe, following avulsion of the nail for onychia. There were 3 examples of superficial thrombophlebitis.

The operation performed in these cases was bilateral removal of that portion of the sympathetic cord containing the 2nd, 3rd and 4th lumbar ganglia. The route was usually transperitoneal. Pre-operative observations included readings on both limbs with an electric surface thermometer, before and after a spinal anaesthetic, the rise of temperature so obtained being a direct measure of the degree of benefit to be expected from the operation. In healthy patients, the rise of temperature in the feet after spinal anaesthesia may be as much as 10° C. The cases are summarized in detail. The operative results are classed as "good" when the patient was free of pain and able to walk well; "fair" when there was improvement as regards pain and general condition but little as regards working capacity; "unsuccessful" when there was no improvement, or amputation was subsequently necessary. Thus classified, the 16 cases show—good, 9; fair, 3; unsuccessful, 4. The operation was never responsible for the return of the pulse in previously silent arteries; this is not to be expected, considering the firm fibrous tissue with which the lumen is choked. Sympathectomy produces its good results by dilating collateral vessels. It would seem that when gangrene is already present, the operation is scarcely worth while. To relieve intolerable "rest-pain", operation may be justifiable even when little return of function can be expected. If the disease be, as seems probable, the result of vascular spasm, there appears to be good

grounds for hoping that sympathectomy will arrest its farther progress. It is interesting that no harmful effects have been observed from the extensive lumbar sympathetic cord removal; patients often state that action of the bowels is more regular than before.

Sympathectomy is concluded to be worthwhile in most cases of this disease and should be done in all cases showing some improvement in circulation under spinal anaesthesia (as measured by surface temperature). Especially in the early cases without thrombosis, the operation can do much good, and in more advanced cases the relief from pain justifies its use. At present most of the cases seen are advanced; it is to be expected that results will be better when operation is not regarded as a last resource but is offered to the patient as soon as a diagnosis is definitely made.

W. FORD CONNELL

Resection of Sensory Nerves of the Perineum in Certain Irritative Conditions of the External Genitalia. Learmonth, J. R., Montgomery, H. and Counsellor, V. S., *Arch. Surg.*, 1933, 26: 50.

In the treatment of such extremely irritative lesions as kraurosis, leukoplakic vulvitis, and pruritus of the vulva, which are particularly resistant to drugs or to roentgen or actinic rays, there are two surgical procedures available—vulvectomy and section of the sensory nerves of the parts. Occasionally malignancy may complicate one of these diseases and in such instances either a simple or a radical vulvectomy may be performed according to its degree. The authors review in detail the nerves of the external genitalia and in their series of 14 cases have demonstrated that neurectomy of one or more of these nerves has a healing effect on the cutaneous lesions above enumerated. Whether the relief will be permanent cannot be yet estimated.

G. E. LEARMONTH

The Etiology of Post-operative Peptic Ulcers. Steinberg, M. E. and Proffitt, J. C., *Arch. Surg.*, 1932, 25: 819.

No method of surgical procedure offers an absolute assurance against the much dreaded post-operative jejunal ulcer. The present study is concerned with the principles involved in the mechanical and chemical factors in the etiology of post-operative peptic ulcers. After reviewing the literature on the mechanical and chemical factors, the experimental problem in the development of post-operative peptic ulcers is discussed. No systematic study has heretofore been made, to determine the direct influence of the motor or mechanical force of the different anatomical and physiological sub-divisions of the stomach on the experimental

production of peptic ulcers. Experimental work on dogs was performed with various methods of gastrointestinal anastomosis in order to study the etiological factors responsible for the formation of post-operative peptic ulcer. It was only when the gastrointestinal anastomosis was subjected to the acid gastric contents, which were prevented from being mixed with the alkaline duodenal contents, that peptic ulcer occurred. Acid pepsin is of the greatest importance in the causation of the experimentally produced ulcer. Among the mechanical factors of importance are two: (1) the muscular pyloric part of the stomach propelling the acid contents of the stomach through the pyloric opening may be responsible for the localized trauma of the jejunum; (2) a kink in the distal loop of the jejunum or a narrow gastrointestinal opening favours the development of a jejunal ulcer. Both of these conditions cause a delay in the emptying time and an increased acidity in the contents of the stomach.

The authors believe that infection plays only a secondary rôle and that an absorbable material, clamps, and hæmatoma are only occasionally responsible for the formation of post-operative jejunal ulcer.

G. E. LEARMONTH

Obstetrics and Gynæcology

Some Phases of the Toxæmias of Pregnancy. Solomons, B., *Am. J. Obst. & Gyn.*, 1933, 25: 172.

The causes of the toxæmias of pregnancy are unknown; the number suggested and proved to be causal factors emphasizes this fact. If theories as to causation are to be of assistance, successful clinical results must follow their application. The two theories, especially in regard to eclampsia, in which food and placental toxins play the chief part seem to be valid as they conform to this rule. If patients can be persuaded to attend pre-natally they should not, as a rule, die; if they do not attend, no treatment will be of avail in some instances, as cerebral hæmorrhage may occur. The varieties of toxæmia are numerous. They might be divided into (a) common; (b) rare. Under the former heading would be included albuminuria with marked toxic symptoms, eclampsism, eclampsia, hyperemesis and accidental hæmorrhage. Pre-natal care must be insisted on. Results will be better but there will still be a small mortality. The Fouchet test is a simple and valuable test for liver-involvement. The nomenclature of eclampsia must be decided on at an international congress.

In evaluating statistics of hyperemesis gravidarum investigation should be made as to whether these cases are truly hyperemesis. There is no cure for some of these cases except

evacuation of the uterus, which can sometimes be carried out gradually; at other times it must be immediate. Toxæmic accidental hæmorrhage, as its name implies, must be classified as toxæmia. It is nearly always curable if treated as soon as it is diagnosed.

ROSS MITCHELL

The Epidemiology, Bacteriology and Treatment of Puerperal Sepsis. Thomas, M., *J. Obst. & Gyn. of Brit. Emp.*, 1932, 39: 877.

Eight hundred cases of puerperal sepsis, treated in Belvidere Hospital, Glasgow, are reviewed from three points of view: (1) epidemiology; (2) bacteriology; and (3) treatment. Three-quarters of the cases followed labour at or near term, whereas in the remaining one-quarter sepsis followed miscarriage. According to the severity of the infection, the cases are divided into four groups: (1) infections limited to the perineum, vagina and cervix; (2) infection within the uterus; (3) infection which has spread to the tubes or parametrium; (4) infection invading the blood stream. The greatest number of fatalities occurred in group 4. Multiparæ over 35 years of age, who had had some instrumental interference, or an infection following a previous pregnancy, were most susceptible. If the infection developed shortly after confinement, the prognosis was more grave. Precipitate labour, rather than long labour, predisposed to severe infection. The streptococcus was the organism found in 75 per cent of fatal cases.

When the infection was limited to the uterus, as in group 2, the intrauterine injection of glycerine once a day proved the best form of treatment. In the more severe infections, treatment along more general lines was advocated. Anti-scarlatinal serum given intravenously at the onset constitutes the most rational measure at present available.

ELEANOR PERCIVAL

Urology

The Pathology of Bladder Neck Obstructions. Randall, A., *J. Urol.*, 1932, 28: 509.

The three major pathological changes causing bladder-neck obstruction are: carcinoma, median-bar formation, and glandular hypertrophy. These are dealt with in the reverse order of their frequency, and their suitability for cystoscopic resection is considered.

The vast majority of prostatic carcinomata are true adeno-carcinomata. They may occur at very early ages and recent work has shown that many conditions heretofore considered sarcomata are really carcinomata manifesting high grades of metaplasia. A case is cited in a lad of 18 years in whom sections from the prostate and neighbouring glands were called sarcoma, and not until a section was taken

from a nodule in the head of the pancreas did the true alveolar structure manifest itself, to prove that it was an adeno-carcinoma throughout. It was formerly thought that the growth starts in the posterior lobe, but we now know that it may start and involve any portion of the prostate. Obstruction in these cases is probably due to phlegmonous induration of the structures about the vesical outlet and to narrowing of the posterior urethra. Relief of these changes by resection is to be considered the treatment of choice, since surgery offers little hope of cure.

Median-bar formation has been described under the headings "contracture of the vesical neck," "prostatism sans prostate," "atrophy of the prostate," etc. Its pathology is a fibrosis which, by its inevitable shrinkage, stenoses the bladder orifice, produces residual urine, and gives all the symptoms of prostatism. This fibrosis is the result of long-standing prostatic infection. The residual urine is caused by hampered function of the trigonal muscle, and surgical relief by resection is easily understood and its virtue has been definitely proved clinically.

Glandular hypertrophy is a condition whose etiology we do not understand. Microscopically, it gives uniformly the picture of an adenoma, which in its growth forms a false capsule, giving us a line of cleavage that makes enucleation possible.

The common types of hypertrophy are: (1) Simple bilateral-lobe hypertrophy where growth is uniform and the sphincter not dilated. This is the intracapsular variety, and these are the cases that fluctuate between complete retention and complete emptying. There is massive trabeculation of the bladder without residual urine and retention occurs because intracapsular tension causes lateral urethral pressure. Cystoscopic resection fails here. (2) Solitary commissural hypertrophies arising from the posterior commissural glandular tissue. This assumes increase in size and is one of the varieties of middle-lobe enlargement. Highly obstructive to the function of the trigonal muscle, its growth causes this muscle to hypertrophy. (3) A combination of the previous groups, when commissural hypertrophy is present to cause sphincteric dilatation and the lateral lobes assume intravesical prominence. These cases have large residuals, thin walls, and cardiorenal complications. The curative value of resection here will be transient. (4) Hypertrophy of the subcervical gland of Albarran. This is the second variety of "middle lobe" enlargement. Submucous in origin, its position strategic, it exhibits the ideal of mechanical blockage, and, being superficial to the trigonal muscle, it does not impair

its function, but renders its work valueless. This type is particularly suited to resection. (5) Subcervical and lateral lobe growth in unison giving rise to intravesical protrusion and unlimited growth as in (3). Resection here is doomed to failure. It is essential that one appreciate these pathological changes, that one interpret their variation, and think out logically and individually the indicated surgical correction.

N. E. BERRY

Ophthalmology

Elective Localization in Determining the Etiology of Chronic Uveitis. Rosenow, E. C. and Nickel, A. C., *Am. J. Ophth.*, 1932, 15: 1.

Clinical evidence of foci of infection in uveitis has been reported and emphasized by many, notably by Benedict and his associates. The authors have observed striking curative effects in some cases following the removal of foci in which they proved the presence of a streptococcus having elective localizing power, and following the use of autogenous vaccine prepared from the streptococcus isolated from involved eyes of rabbits that had received injections. Dismal failures were also noted in other cases, but in no case were any harmful effects observed. The streptococcus having elective localizing powers has been isolated with about equal frequency from different foci, such as tonsils, teeth, prostate gland, and uterine cervix, in cases of uveitis, and in some cases from several of these foci and from the nasopharynx simultaneously. Since the specific streptococcus in cases where patients are suffering from active symptoms has been demonstrated to be present in different foci, not too much should be expected from the removal of a particular focus in individual cases.

That removal or elimination by non-surgical means of foci, so far as possible, with or without the use of autogenous vaccine, often results in spectacular cures and in the prevention of attacks, although of fundamental importance, is not sufficient to solve the problem. More is required, such as specific treatment with an antiserum. A hyperimmune serum has been produced in the horse which is now being used to type the different strains by means of agglutination and precipitant tests and serum potential measurements. The effect of the serum of patients on the strains which have elective localizing power is also being studied in the hope of proving still further the etiological relationship of the streptococcus. The hyperimmune horse serum and the serum from patients who have acute iritis have already been shown to possess specific agglutinating power and serum potential lowering effects over the homologous and heterologous strains. Each of the several conditions,

as they occur spontaneously in man, has been accurately produced or closely simulated following various methods of inoculation of the streptococcus, including the production of foci of infection in teeth or in bony cavities. Thus, examples of pure iritis, of cyclitis, of choroiditis, and of various combinations of these, have been successfully produced. The streptococcus has been demonstrated in the lesions even when the dead organisms have been injected, and it has been isolated from the lesions and the disease reproduced after one or more passages through animals. The dead streptococcus and filtrates of culture that manifested elective localizing power also had specific affinity for the eye, causing typical ocular reaction. The most important requirements for causal relationship of this streptococcus to uveitis and other intra-ocular diseases of the eye have been fulfilled.

S. HANFORD MCKEE

Two Cases of Palpebral Granuloma. Rifat, A., *Ann. d'Ocul.*, 1932, 169: 198.

In two cases, one of which was in a boy of 15 years and another in his cousin aged 10, the symptoms and course were identical. In the first patient there were multiple tumours, and three of the eyelids as well as the cheeks were affected. The duration of the disease was 8 years for the right and 7 years for the left. In the second case only one lid was affected and the duration was 5 years. The tumours developed slowly and without any acute inflammatory reaction. These subjects did not show any signs of syphilis or tuberculosis, nor any other infection, clinically. The lymphatic glands were normal. In the first case there were blood changes of moderate degree in the white and red cells, in their number and in their biological properties. The number of white cells slowly increased, while the polymorphonuclears and eosinophiles were little different from normal. There was marked anaemia—3,000,000 red cells with a parallel diminution of haemoglobin. In the second case the white cells were only slightly increased.

At operation encysted tumours were found, forming white masses and enclosing numerous nodules of different sizes. They were adherent to the skin at different points, and in the first case there was extension from the inferior lid to the orbit. The tumours were formed of lymphocytes, plasmocytes, and large cells of clear protoplasm and inflammatory conjunctival element. These cases differ from those which McAll observed in central China. In the latter the sub-conjunctival granuloma generally settled near the internal canthi; the masses developed in front of the ocular globe, made deep cavities in the lids resembling the conjunctival cul-de-sac, and the lids progressively increased in size until there was mechanical occlusion of the

palpebral fissure. It is impossible to establish the nature of these lesions, which are probably infections.

S. HANFORD MCKEE

Neurology and Psychiatry

Tumours of the Third Ventricle. Allen, S. S. and Lovell, H. W., *Arch. Neurol. & Psychiat.*, 1932, 28: 990.

Tumours of the third ventricle may be divided into three definite classes: those arising from the floor of the ventricle and producing no obstruction to the flow of cerebrospinal fluid; those obstructing the foramen of Monro and capable of changing position by deviation of the head; those extending into the aqueduct, affecting the surrounding structures by direct extension or by pressure alone. The authors discuss 8 cases of the latter type.

The tumours in the posterior part of the third ventricle are relatively infrequent. Associated cerebellar signs are often very confusing. Symptoms due to generalized increase of intracranial pressure appear constantly, but offer no aid in localization. Hydrocephalus from obstruction of the aqueduct of Sylvius is almost constant. Severe headaches, drowsiness, progressive failure of vision, and vomiting were the outstanding symptoms of pressure. Although the drowsiness may be entirely due to increased intracranial pressure, it is nearly always a predominating feature of tumours in this region. Paralysis of associated upward movement of the eyes is the most significant localizing sign, and is particularly apt to be found in those cases where the tumour arises from the pineal body. Localization may only be possible with the aid of ventriculograms. After filling the ventricles with air, lateral exposures of the skull should be taken both with the face upwards and with the face downwards.

FRANK A. TURNBULL

Distortions of the Visual Fields in Cases of Brain Tumour. Horrax, G. and Putman, T. J., *Brain*, 1932, 55: 499.

This paper from Cushing's clinic is a study of the field defects and hallucinations produced by tumours of the occipital lobe. The rarity of tumour in this region is indicated by its occurrence in only 40 instances in a series of 1,881 verified intracranial growths. In a large proportion of patients having tumour confined to or chiefly compressing the occipital lobe, fields of vision show a contralateral, homonymous hemianopsia in which the central fibres remain unaffected. An upper quadrantal homonymous defect of the visual fields was not disclosed in any case of the series. Visual hallucinations occurred in 15 per cent of the patients before operation for tumour removal. These hallucina-

tions consisted of "unformed" images, such as spots, circles, and flashes of light.

The differential diagnosis between temporal and occipital tumours may be impossible without ventriculography. The high incidence of spared central fibres, together with the rarity of upper quadrantal defects in the latter, are helpful, since bisection of the macula and upper quadrantanopia are frequent in the former. Other differential features are the relatively greater tendency to the true quadrantic form (bounded by the horizontal meridian) in defects due to temporal lobe lesions, and their greater incongruity as compared with those due to tumours of the occipital lobe.

FRANK A. TURNBULL

Multiple Sclerosis in Father and Daughter.

Burns, M. A., *Arch. Neur. & Psych.*, 1932, 28: 1446.

Cases of multiple sclerosis in more than one member of a family are rather rare. Burns mentions several families in which several members showed the disease which have been reported in the literature. Thus he mentions one with mother and son affected; two with brother and sister affected; one with two brothers and a sister; and one with two sisters and a brother as the patients. Finally, he recalls Robinson's family in which there were 8 cases through three generations.

His own cases were as follows. A man of 37 complained of difficulty in walking, frontal headaches, and sphincteric disturbances. The family history was good. Examination revealed spastic lower extremities, with the reflexes much increased. The Babinski sign was positive on both sides. There was a slight decrease in the reflexes in the upper extremities, some ataxia, and loss of power. There was loss of sphincteric control. Laboratory tests for syphilis were negative. After ten diathermy treatments he was discharged improved, but was readmitted two months later, again complaining of the same symptoms.

His daughter, of 14, was admitted at about the same time. Her initial onset had been five months earlier than her father's. She had returned from school one day feeling nauseated, went to bed for three days, and suddenly became cross-eyed. A year later she had another attack of nausea in school, and went to bed. When she got up after several weeks of a vague illness, in which she had been weak, nervous and tremulous, she could no longer walk without staggering, and her head shook. Two months later she noted ataxia of the hands and speech difficulties. Neurological examination revealed nystagmus, shaking of the head, difficulty of speech, ataxia of the extremities, and lost abdominal reflexes. The feet were deformed, with high arches, exaggerated reflexes, a bilateral

Babinski sign and ankle clonus. All the tests of blood and urine and spinal fluid were normal.

In the discussion following the presentation of Burns' cases, two physicians mentioned families in their care in which two children in the family had been victims of multiple sclerosis.

MADGE THURLOW MACKLIN

Therapeutics

The Position To-day of Tuberculin in Treatment. Young, R. A., *Brit. M. J.*, 1932, 2: 1090.

The present widely varying views as to the utility and even the specificity of tuberculin are noted. It seems to be quite innocuous to a non-tuberculous person; in those infected with tuberculosis, it produces the well-known tuberculin reaction, with local, focal and systemic effects—an allergic phenomenon. Other substances have been said to produce a like effect in tuberculous individuals, it being claimed that a general non-specific hypersensitiveness to toxic substances develops in this disease. In many sanatoria the use of tuberculin has been greatly restricted or entirely discarded. In so-called surgical tuberculosis (of glands, bone, joints, ocular or genito-urinary systems), it still has a considerable vogue. The author believes that here it has very definite therapeutic uses, but that in the pulmonary form of the disease, its use is strictly limited—to patients in whom the disease has progressed satisfactorily towards arrest, but who are left with a small amount of expectoration containing tubercle bacilli. In such case we may hope to get rid of the sputum, the bacilli, or both. Its use in "resting afebrile, and ambulant febrile" cases must be most carefully watched. Its great use is in localized genito-urinary infections, especially if combined with chronic or latent pulmonary tuberculosis, where surgery is impracticable or inadvisable. It is very helpful in localized ocular tuberculosis. In more acute spreading disease it is definitely harmful, in that it may produce an uncontrollable focal reaction. It should not be given to febrile cases, whether continuous, intermittent, or remittent. It can only be harmful in any form of miliary tuberculosis. Albuminuria, unless due to vesical or renal tuberculosis, is a definite contraindication.

There are four main types of tuberculin: (1) filtrates of cultures, concentrated (e.g., Koch's O.T.); (2) extracts from bacillary bodies (e.g., Koch's T.O. or T.R.); (3) emulsions of ground-up bacilli (e.g., Koch's new tuberculin, or B.E.); (4) vaccine from living attenuated cultures (e.g., B.C.G.). The author has used only the first three types, largely B.E., but T.R. for surgical conditions. The reaction varies only in degree and not in kind with the preparation used. He recommends starting, in

pulmonary cases, with a dose of only 1/500,000 mgrm. of B.E.; then, if there is no reaction in three or four days, raising to 1/400,000 mgrm.; the interval between doses is later raised to 7 days and the dose is very slowly raised to 1/500 mgrm. In surgical tuberculosis, the first dose may be 1/10,000 mgrm. of T.R., increasing gradually to 1/1000 mgrm., and continuing with the latter dose. The author uses only the subcutaneous route, though tuberculin may also be given by the mouth, intracutaneously, or percutaneously (by inunction). The effect of a slight increase in dose is difficult to gauge; it may produce a severe response. It is generally agreed that the benefit of this treatment lies in the focal effects obtained—tending to hyperæmia and a subsequent increase of reactionary changes leading to fibrosis and arrest. Tuberculin can only be helpful in a medical (pulmonary) case where the focus of disease is localized and non-toxic. When the focus is spreading and locally infective, tuberculin is dangerous.

W. FORD CONNELL

Sustained Artificial Fever in the Treatment of Intractable Asthma. Feinberg, S. M., Osborne, S. N. and Steinberg, M. J., *J. Am. M. Ass.*, 1932, 99: 801.

Basing their work on the commonly made observation that febrile illness frequently initiates a relief from asthma, the authors treated a series of cases of intractable asthma by sustained pyrexia, artificially induced. In inducing pyrexia, they employed the high frequency current and a specially prepared insulating bag which entirely enclosed the patient. They aimed to secure and sustain a rectal temperature of 104° for a period of eight hours. Two treatments were given during a hospitalization of four or five days. Previously all patients were carefully examined to determine whether or not they were physically able to take the proposed treatment.

During the treatment perspiration is usually profuse; nausea and vomiting may occur and occasionally muscle cramps, delirium, and herpes labialis were encountered. Each treatment resulted in a loss of two to five pounds in weight. Vital capacity was definitely increased by the treatment.

The patients selected were those who had failed to respond to the usual methods of treatment. All had chronic asthma with one or more attacks occurring daily.

Where a sustained fever of 103° for five hours was obtained this was deemed a satisfactory treatment. Twenty-one out of 42 patients received at least one "satisfactory" treatment. In the 37 cases analyzed 5 patients (13 per cent) showed no improvement; two (5 per cent) were not heard from, and the remaining 30 (18 per cent) showed improvement varying in duration

from one to forty-eight weeks. In 22 cases, improvement has lasted over one month. In 18 cases complete freedom from asthma was obtained for from several days to 9½ months.

The authors conclude that in this form of therapy "we have found a method of obtaining relief in cases of intractable asthma, in which all other methods heretofore failed."

T. G. HEATON

Tuberculosis of the Larynx and Artificial Sunlight Treatment. Thomson, Sir StClair, *Brit. M. J.*, 1932, 2: 905.

Thirty-two favourable cases of laryngeal tuberculosis were subjected to carbon lamp therapy at the King Edward VII Sanitarium, Midhurst, between 1926 and 1929. The results are compared with those obtained under ordinary sanatorium regime, sometimes supplemented with the galvano-cautery or artificial pneumothorax. Twenty-four cures resulted, but all the cases were considered very favourable as regards the possibility of cure, and it is concluded that benefit from the light therapy might only be claimed in two or three cases. The healing process was not hastened, nor did the light therapy render subsequent cure by the cautery more rapid or certain when this additional method had to be resorted to. It is felt that the method is positively dangerous in some cases and adds nothing to the treatment at present in use in well-ordered sanatoria. The point is made that "the whole picture of tuberculosis is so remarkably changed for the better under sanatorium regime that many remedies which appear to be beneficial under ordinary hospital or home conditions are found to add nothing to the improvement wrought by hygienic living in unvitiated air."

W. FORD CONNELL

Pathology and Experimental Medicine

Etiology and Pathogenesis of Hepatic Cirrhosis.

Althausen, T. L., *Ann. Int. Med.*, 1933, 6: 1080.

In experimental cirrhosis of the liver the first evidences of degeneration are invariably found in the parenchyma, regardless of the toxic agent used. To produce cirrhosis, the toxin must be administered repeatedly and in sufficient doses to produce necrosis of some of the parenchymatous cells without causing death of the animal. Necrosis is followed by regeneration of parenchyma and by sclerosis. After repeated episodes of sclerosis, strands of fibrous tissue extend into the parenchyma of the liver and join together to give a nodular appearance to the cut surface of the organ. At the same time the reticulum in the unaffected portion of the lobules also increases in density. It was seldom

found possible to produce cirrhosis by the use of alcohol alone. When, however, it was given in combination with other hepatic toxins, the amount of resulting liver damage was greater than that produced by these toxins alone. Inert colloids like India ink, colloidal silica, trypan blue, etc., cause liver degeneration possibly by mechanically filling the units of the reticulo-endothelial system, thus exposing the parenchyma to the influence of poisons circulating in the blood. Individual susceptibility plays a large part in the production of cirrhosis.

It is the relative prominence of necrosis, sclerosis and regeneration that accounts for the terminal picture seen by the clinician and the pathologist. At one extreme is the toxic cirrhosis of Mallory with massive necrosis, vigorous regeneration of the parenchyma, and little interstitial fibrosis; at the other is the atrophic type of portal cirrhosis characterized by an extensive penetration of fibrous tissue into the hepatic lobules. All possible grades occur between these two types of cirrhosis, and the most elaborate classifications show how impossible it is to differentiate sharply between them.

The unitary conception of the genesis of cirrhosis is important, because it focuses attention on the toxic agent instead of on the anatomical diagnosis, and is conducive to earlier recognition and treatment. The classical symptoms of the disease are really signs of grave decompensation, which supervenes only when regeneration has for some time been falling behind necrosis. This failure of regeneration is brought about by diminution in blood supply and extensive fibrosis, and by the tendency in middle age for connective tissue to replace parenchyma.

H. GODFREY BIRD

The Gastric Secretion of Pernicious Anæmia.

Wilkinson, J. F., *Quart. J. of Med.*, 1932, 1: 361.

Of 208 cases showing a typical pernicious anæmia blood picture, 200 showed achylia gastrica on fractional test-meal analysis. The results of acetyl-choline and histamine injection and also of liver and of hog's stomach therapy were noted in a number of the cases. In none was any hydrochloric acid formation induced. Of the 8 cases showing free hydrochloric acid, 2 were examples of the pernicious anæmia of pregnancy, 1 developed malignant ulceration of the fauces, while the remaining 5 were undoubted examples of pernicious anæmia—one of them showed early signs of subacute combined degeneration. Characteristic of the achylic cases was a low fasting content—15.3 c.c. average, as compared with the normal of 52 c.c. Mucus was usually present, and sometimes bile; no blood or lactic acid was found. The total acidity was 5 to 10 units. The emptying time averaged two hours.

W. FORD CONNELL

Obituaries

Dr. Alexandre Boucher died at Loretteville, Que., on February 17, 1933. He was a native of Saint-Denis de Kamouraska, where he was born on March 14, 1858. He studied at the College of Ste. Anne-de-la-Pocatière, and graduated in medicine at the University of Laval, Quebec, in 1886. He practised the rest of his life in Loretteville. Dr. Boucher leaves a widow (née Emma Richard), one son and two daughters.

Dr. James O. Calkin died at his home at Sackville, N.B., on March 22nd, 1933, aged 73 years. He was born at Hopewell Cape, Albert County, educated at the public schools there, and in 1890 graduated in medicine from the University of Vermont. He first practised at Sussex, N.B., but for the last forty-two years had practised in the neighbourhood of Sackville. He was attending physician for Mount Allison University and for the Ladies' College for forty years, and was consulting physician on the staff of the Moncton City Hospital. For a time, he was an alderman at Sackville, and for many years was coroner of the district.

Dr. Joseph Cinq-Mars died at St. Coeur-de-Marie, Lake St. John, on February 27th, at the age of 70. He was born on October 3, 1862, and studied medicine at Laval University, Quebec, where he graduated in 1887. He then studied two years in Europe and returned to practise in Quebec, where he remained for 16 years. He afterwards established himself in St. Coeur-de-Marie.

Dr. Frederick H. Daigneault died on February 26th at his residence at Acton Vale, Que., at the age of 72. Dr. Daigneault was born at Chambly Basin. He graduated in medicine at the University of Montreal in 1884. He was a well known figure in political circles and for fifteen years represented the electoral division of Bagot in the Provincial Legislature. In spite of his political activities, however, he continued to practise his profession regularly.

Dr. Robert Grenville Day, of West Saint John, N.B., died recently at his residence. He was born in 1856, and was a graduate in medicine of the University of Pennsylvania (1892). He had practised continually since his graduation at West Saint John.

Dr. William James Derome, surgeon to the Hôtel Dieu, and Professor Emeritus of the University of Montreal, died on March 7th at his home in Outremont. He was born on March 6, 1869, at Saint-Jean-Chrysostome, the son of I. J. L. Derome, Notary, and Jane Cross, and studied at the College of Montreal. In 1895 he received his degree in medicine at the University of Laval, of Montreal. Later he became chief intern at the Notre Dame Hospital, and then was surgeon at the Hôtel-Dieu, and Emeritus Professor at the University of Montreal. He was a Fellow of the Royal College of Surgeons of Canada and also of the American College of Surgeons. He leaves a widow and six children.

Colonel Lorne Drum. Just as we were going to press we learned of the sudden and regrettable death on April 17, 1933, of Colonel Lorne Drum, of Ottawa. He was sixty-two years of age. Colonel Drum had been Director-General of the Saint John Ambulance Association since his retirement from the post of District Medical Officer in British Columbia, Department of National Defence, and had entered on his new duties with enthusiasm. He had a distinguished record during the Great War and since, and was a most efficient officer. He